

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A cap moving mechanism for moving a cap for sealing a liquid ejecting head for ejecting liquid to a target, comprising:

a pushing-up part for moving said cap upwards or downwards by rotating;

a cam shaft provided integrally with said pushing-up part as a rotating shaft of said pushing-up part;

a cam shaft gear comprising a drive region, which rotates integrally with said cam shaft taken as a rotating shaft, whereby a driving force of a motor for driving said cam shaft is transmitted, and a non-drive region whereby said driving force of said motor is not transmitted; and

a driving force transmission gear for transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved downwards from a state in which said cap has been completely moved upwards, after said motor rotates by a predetermined amount from when said cap has been completely moved upwards, and transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved upwards from a state in which said cap has been completely moved downwards, after said motor rotates by a predetermined amount from when said cap has been completely moved downwards;

wherein said driving force transmission gear comprises:

a toothed gear comprising a drive region whereby said driving force of said motor is transmitted and a non-drive region whereby said driving force of said motor is not transmitted;

a spur gear being in contact with said toothed gear;

an energizing part for transmitting a rotating force of said spur gear to said toothed gear, and

said spur gear rotates freely against said cam shaft taken as a center axis, said spur gear receiving said driving force of said motor, said spur gear energized by said energizing part towards said toothed gear, said toothed gear thereby being rotated accompanying said spur gear,
wherein said toothed gear is arranged between said cam shaft gear and said spur gear.

2. (Cancel)

3. (Original) A cap moving mechanism as claimed in claim 2, wherein said toothed gear can rotate freely against said cam shaft taken as a center axis by a predetermined rotation angle.

4. (Original) A cap moving mechanism as claimed in claim 3, wherein said drive region of said toothed gear is arranged in at least a part of an angle area in which said non-drive region of said cam shaft gear is arranged with regard to said cam shaft.

5. (Original) A cap moving mechanism as claimed in claim 2, wherein said toothed gear further comprises two of said non-drive regions between which said drive region is held.

6. (Canceled)

7. (Original) A cap moving mechanism as claimed in claim 2 further comprising:
at least two of said pushing-up parts between which said cam shaft gear, said toothed gear, said spur gear and said energizing part are arranged.

8. (Original) A cap moving mechanism as claimed in claim 2, wherein said pushing-up part is cam-shaped.

9. (Currently Amended) A liquid ejecting apparatus for ejecting liquid to a target, comprising:

a liquid ejecting head for ejecting liquid to said target;
a cap for sealing said liquid ejecting head;
a pushing-up part for moving said cap upwards or downwards by rotating;
a cam shaft provided integrally with said pushing-up part as a rotating shaft of said pushing-up part;

a cam shaft gear comprising a drive region, which rotates integrally with said cam shaft taken as a rotating shaft, whereby a driving force of a motor for driving said cam shaft is transmitted, and a non-drive region whereby said driving force of said motor is not transmitted; and

a driving force transmission gear for transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved downwards from a state in which said cap has been completely moved upwards, after said motor rotates by a predetermined amount from when said cap has been completely moved upwards, and transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved upwards from a state in which said cap has been completely moved downwards, after said motor rotates by a predetermined amount from when said cap has been completely moved downwards;

wherein said driving force transmission gear comprises:

a toothed gear comprising a drive region whereby said driving force of said motor is transmitted and a non-drive region whereby said driving force of said motor is not transmitted;

a spur gear being in contact with said toothed gear;

an energizing part for transmitting a rotating force of said spur gear to said toothed gear, and

said spur gear rotates freely against said cam shaft taken as a center axis, said spur gear receiving said driving force of said motor, said spur gear energized by said energizing part towards said toothed gear, said toothed gear thereby being rotated accompanying said spur gear,

wherein said toothed gear is arranged between said cam shaft gear and said spur gear.

10 - 18 (canceled)

19. (new): A cap moving mechanism for moving a cap for sealing a liquid ejecting head for ejecting liquid to a target, comprising:

a pushing-up part for moving said cap upwards or downwards by rotating;

a cam shaft provided integrally with said pushing-up part as a rotating shaft of said pushing-up part;

a cam shaft gear comprising a drive region, which rotates integrally with said cam shaft taken as a rotating shaft, whereby a driving force of a motor for driving said cam shaft is transmitted, and a non-drive region whereby said driving force of said motor is not transmitted; and

a driving force transmission gear for transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved downwards from a state in which said cap has been completely moved upwards, after said motor rotates by a predetermined amount from when said cap has been completely moved upwards, and transmitting said driving force of said motor to said cam shaft gear in order that said cap can be moved upwards from a state in which said cap has been completely moved downwards, after said motor rotates by a predetermined amount from when said cap has been completely moved downwards;

wherein said driving force transmission gear comprises:

a toothed gear comprising a drive region whereby said driving force of said motor is transmitted and a non-drive region whereby said driving force of said motor is not transmitted;

a spur gear being in contact with said toothed gear;

an energizing part for transmitting a rotating force of said spur gear to said toothed gear;

said spur gear rotates freely against said cam shaft taken as a center axis, said spur gear receiving said driving force of said motor, said spur gear energized by said

energizing part towards said toothed gear, said toothed gear thereby being rotated accompanying said spur gear; and
at least two of said pushing-up parts between which said cam shaft gear, said toothed gear, said spur gear and said energizing part are arranged.

20. (new): A cap moving mechanism as claimed in claim 19, wherein said toothed gear can rotate freely against said cam shaft taken as a center axis by a predetermined rotation angle.

21. (new): A cap moving mechanism as claimed in claim 20, wherein said drive region of said toothed gear is arranged in at least a part of an angle area in which said non-drive region of said cam shaft gear is arranged with regard to said cam shaft.

22. (new): A cap moving mechanism as claimed in claim 19, wherein said toothed gear further comprises two of said non-drive regions between which said drive region is held.

23. (new) A cap moving mechanism as claimed in claim 19, wherein said pushing-part is cam-shaped.